OPEN FILE REPORT 79-097 DEPARTMENT OF THE INTERIOR MONTANA-POWDER RIVER CO. PLATE 16 OF 25 GEOLOGICAL SURVEY 7.5 MINUTE SERIES (TOPOGRAPHIC) 105°52'30" 45°37'30" 105°45′ 45°37′30″ R. 47 E. R. 48 E. 47'30" OPEN-FILE REPORT This report has not been edited for conformity with U.S. Geological Survey editorial standards or 0.12 0.10 stratigraphic nomenclature. 0.16 0.14 0.30 0.22 0.01 0.01 31 RB 9.62 7.30 1.09 R(85%) RB 14.07 21.45 T. 2 S. T. 2 S. T. 3 S. T. 3 S. EXPLANATION NON-FEDERAL COAL LAND-Land for which the Federal Government does not own the coal rights. 1 SL _____1 R(85%) STRIPPING-LIMIT LINE—Boundary for surface mining 6.81 5.79 of the coal bed (in this quadrangle, the 200-foot 29.43 25.02 overburden isopach). Arrows point toward the area suitable for surface mining. Recovery factor of 85 percent within that area in this quadrangle. 3.82 3.25 10.00 RB R(85%) BOUNDARY OF COAL 5 FEET OR MORE THICK-22.00 1.77 1.50 Drawn along the outcrop of coal bed and/or the inferred 8.22 6.98 contact between burned and unburned coal, and/or the 1.10 0.93 5-foot coal isopach. Arrows point toward area of coal 5 feet or more thick. 12 12 POINT OF MEASUREMENT ON COAL BED 8.84 13.96 R(85%) 1.81 1.54 14 18 34-mile radius 1.82 Point of measurement Indicated of coal bed resources R(85%) 5.72 14.45 6.73 17.00 R(85%) 0.81 0.69 24 12.47 10.60 5.77 0.46 9.57 0.69 0.55 0.03 0.59 0.47 22.06 SSL 3.52 4.14 12.29 10.45 Inferred 0.24 resources 1.82 2.14 2.36 2.01 32'30" 5.82 4.95 R(85%) 16.97 14.42 0.04 0.05 2.30 2.03 2.39 17.94 RB R(85%) 6.74 5.73 10.63 9.04 3.60 4.24 DIAGRAM SHOWING COMPONENT AREAS OF 8.91 10.48 IDENTIFIED COAL RESOURCES—Shows arcuate 1.85 boundary lines enclosing areas of measured, indicated, RB and inferred coal resources. Boundaries of areas are 0.04 RB 1.56 6.53 dashed where projected from an adjacent quadrangle. Areas of measured, indicated, or inferred resources 0.33 may be present on this map without their outer boundaries being shown. 1.25 (Measured resources) (Indicated resources) 0.14 0.16 (Inferred resources) 0.01 R(85%) IDENTIFIED COAL RESOURCES-Showing totals for 0.43 0.37 Reserve Base (RB) and Reserves (R), in millions of short 1.59 1.35 2.50 2.12 1.15 1.35 tons, for each section or part(s) of a section of Federal 3.08 2.62 0.20 0.17 coal land within the stripping-limit line. Dash indicates 1.70 no resources in that category. Reserve Base (RB) X the 16.39 Recovery Factor (85 percent) = Reserves (R). (Measured resources) 28.82 (Indicated resources) (Inferred resources) IDENTIFIED COAL RESOURCES-Showing totals for Reserve Base (RB), in millions of short tons, for each section or part(s) of a section of Federal coal land outside the stripping-limit line. Dash indicates no resources in 0.35 that category. 7.73 0.06 0.87 11.79 12.89 2.88 NOTE: Recovery factors have not been established for /XX/ SL underground development of coal in this quadrangle. Therefore, Reserves (R) were not calculated for the coal 105°45' 105°52′30″ bed in areas outside the stripping-limit line. Base map from U.S. Geological Survey, 1966 SCALE 1:24 000 Compiled in 1977 To convert short tons to metric tons, multiply short tons by 0.9072.To convert feet to meters, multiply feet by 0.3048. MONTANA To convert miles to kilometers, multiply miles by 1.61. UTM GRID AND 1966 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET QUADRANGLE LOCATION COAL RESOURCE OCCURRENCE MAP OF THE SAMUELSON RANCH QUADRANGLE,

SAMUELSON RANCH QUADRANGLE

UNITED STATES

COAL RESOURCE OCCURRENCE MAP OF THE SAMUELSON RANCH QUADRANGLE,
POWDER RIVER COUNTY, MONTANA
RY

COLORADO SCHOOL OF MINES RESEARCH INSTITUTE
1979

AREAL DISTRIBUTION AND TONNAGE
MAP OF IDENTIFIED RESOURCES OF
THE SAWYER COAL BED
AND THE UPPER SPLIT OF
THE SAWYER COAL BED

PLATE 16